Procedures and Guidelines

DIRECTIVE NO.	972-PG-1410.2.1A	**APPROVED BY Signature:**	*Original Signed By*
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EXPIRATION DATE:	N/A	**TITLE:**	Head, Observational Science Branch

Responsible Office: 972/Observational Science Branch

Title: Configuration Management Plan

PREFACE

P1.   PURPOSE

To establish a Configuration Management Plan for Code 972 projects which are within the scope of the Goddard Space Flight Center's (GSFC) Quality Management System (QMS).

P2.   REFERENCES

GPG 1310.1, Customer Commitments and Review
GPG 1410.2, Configuration Management

P3.   SCOPE

These Procedures and Guidelines apply to all projects managed within Code 972 that are within the scope of the GSFC's Quality Management System. It does not apply to research projects or instrument development for those research projects whose only external products are scientific results.

P4.   DEFINITIONS

1. Product Design Lead (PDL) – the person responsible for the overall management of the design and implementation of the design of the corresponding project's product. The PDL is typically the Instrument Scientist, Principal Investigator, Project Scientist, or similar person.

2. Configuration item – any item that is under configuration control.

P5.   AUTHORITIES AND RESPONSIBILITIES

The PDL of each applicable project shall ensure that his or her project conforms to this PG.

P6.   CANCELLATION

972-PG-1410.2.1 Configuration Management Plan

P7.   QUALITY RECORDS

Quality Record Title	Record Custodian	Retention
Completed Configuration Change/Approval Requests	Project PDL	NRRS 8/5-A2 Records may be retired to an FRC when 2 years old. Destroy when 15 years old.

IMPLEMENTATION

1. Configuration Control Board: Each project shall have a Configuration Control Board (CCB).

   a. Membership: The CCB shall consist of the PDL (who will serve as chairperson), and as needed by the specific project, may include a Lead Systems Engineer, a Lead Electrical Engineer, a Lead Mechanical Engineer, and a Lead Software Engineer. The PDL will select the other board members. If appropriate, the CCB can consist of only the PDL.

   b. Change approval authorities: Only the PDL or his/her designee may approve changes. Approval shall only be granted on the advice and consent of a majority of the CCB.

2. Determination of configuration items: Configuration control of hardware shall be applied at the board level and above. That is, individual parts, components, and developmental hardware do not require configuration control. If there is a dispute as to whether or not an item should be under configuration control, (that is, a "configuration item") the CCB shall convene to determine the proper classification of the item. If the dispute cannot be resolved in this manner, the PDL shall make the final determination.

3. Identification numbers: All configuration items shall have unique identification numbers that distinguish them from all other items at GSFC.

   a. At the beginning of a project, the PDL or his/her designee shall access the GSFC Engineering Information Management System at

      http://gdms.gsfc.nasa.gov/gsfc_cm/plsql/cmmaster.main

      to request a unique block of configuration control numbers by clicking on the "ALL" button, and then the "Get Dwg Number Block" and then filling out the request form. (The user ID and password used for entry into the Goddard Directives Management System may be required). These numbers shall be used on the project's configuration items.

   b. The PDL shall then assign sections of this block to the various disciplines within the project. For example, the Lead Electrical Engineer shall have a sub block assigned to him/her; he/she will then be responsible for the assignment of configuration control numbers to electrical configuration items from this sub block.

    c. If the project uses the entire assigned block of numbers, more blocks, as needed, shall be obtained in the same manner, as was the first block.

4. Establishment of configuration baselines: The PDL shall determine the baseline configuration of each configuration item.

5. Configuration changes: Whenever a request to change the configuration is made by any member of the product development team or the product's customer, a meeting of the CCB shall be scheduled. The requested change and the disposition by the CCB of that request shall be documented and maintained as a Quality Record. There is no required format for this documentation.

    a. The PDL shall determine the level of formality of each change approval.

        1. If a complete change of a drawing is required, this shall be noted in the CCB meeting notes. A revision level shall then be assigned to the appropriate configuration control number.

        2. If only redlining of a drawing is needed, each redlined change shall be initialed and dated by the PDL. The PDL shall determine when the number of redlines becomes great enough to cause confusion shall then regenerate a new drawing as a new revision.

    b. Changes shall be implemented as soon as possible after they have been authorized.

6. Configuration management procedures for subcontractor design: Subcontractors may assign their own configuration numbers to "subcontracted out" configuration items as dictated by their company policy, however, all other aspects of this PG must be followed for such configuration items. That is, the PDL-chaired CCB shall determine the disposition of all configuration items, regardless of the source.

CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	10/23/2000	Initial Release
A	10/09/2001	P6 modified to reflect cancellation of previous release. Corrected P7 to reflect proper Retention authority